United States Environmental Protection Agency Region 7 300 Minnesota Avenue Kansas City, KS 66101

Date: 04/24/2019

Subject: Transmittal of Sample Analysis Results for ASR #: 8209

Project ID: TJAAEEP4S

Project Description: Alt-En Ethanol Plant - NDEQ ASR

From: Margaret E.W. St. Germain, Chief

Laboratory Technology & Analysis Branch

Laboratory Services and Applied Sciences Division

To: Tabatha Adkins ENST/LTAB

Enclosed are the analytical data for the above-referenced Analytical Services Request (ASR) and Project. These results are based on samples as received at the Science and Technology Center. The Regional Laboratory has reviewed and verified the results in accordance with procedures described in our Quality Manual (QM). In addition to all of the analytical results, this transmittal contains pertinent information that may have influenced the reported results and documents any deviations from the established requirements of the QM.

Please ensure that you file this electronic (.pdf only) transmittal in your records management system. The Regional Laboratory will now retain all of the original hardcopy documentation (e.g. COC[s] and the R7LIMS field sheet[s], etc.) according to our ENST records management system.

Please contact us within 14 days of receipt of this package if you determine there is a need for any changes. Please complete the Online ASR Sample/Data Disposition and Customer Survey for this ASR as soon as possible. The process of disposing of the samples for this ASR will be initiated 30 days from the date of this transmittal unless an alternate release date is specified on the Online ASR Sample/Data Disposition and Customer Survey. It is critical that we receive your response in accordance to RCRA and the laboratory accreditation.

If you have any questions or concerns relating to this data package, contact our customer service line at 913-551-5295.

Summary of Project Information

04/24/2019

Project Manager: Tabatha Adkins Org: ENST/LTAB Phone: 913-551-7128

Project ID: TJAAEEP4S QAPP Number: NDEQ

Project Desc: Alt-En Ethanol Plant - NDEQ ASR

Location: Mead State: Nebraska Program: Water Enforcement

Purpose: Site Characterization GPRA PRC: 000E50

This screening/characterization event is in response to recent complaints of odor and

other concerns.

Additional field contact is: Wade Gregson, NDEQ (402-601-1011).

Per NDEQ submitted ASR on 4/4/2019: This ASR is not part of a litigation hold at this

time.

ASR Number: 8209

Explanation of Codes, Units and Qualifiers used on this report

Sample QC Codes: QC Codes identify the type of sample for quality control purpose. **Units:** Specific units in which results are reported.

__ = Field Sample mg/L = Milligrams per Liter

% = Percent

ug/L = Micrograms per Liter mg/kg = Milligrams per Kilogram

Data Qualifiers: Specific codes used in conjunction with data values to provide additional information on the quality of reported results, or used to explain the absence of a specific value.

(Blank) = Values have been reviewed and found acceptable for use.

J = The identification of the analyte is acceptable; the reported value is an estimate.

UJ = The analyte was not detected at or above the reporting limit. The reporting limit is an estimate.

U = The analyte was not detected at or above the reporting limit.

ASR Number: 8209

Sample Information Summary

04/24/2019

Project ID: TJAAEEP4S

Project Desc: Alt-En Ethanol Plant - NDEQ ASR

Sample No	Matrix	Location Description	External Sample No	Start Date	Start Time	End Date	End Time	Receipt Date
1 -	 Solid	Wet cake sample		04/08/2019	11:00			04/09/2019
2 -	 Water	West Lagoon water sample		04/08/2019	12:35			04/09/2019
3 -	 Water	Overflow Lagoon water sample		04/08/2019	13:30			04/09/2019
4 -	 Solid	Seed corn sample		04/08/2019	13:30			04/09/2019

ASR Number: 8209

RLAB Approved Analysis Comments

04/24/2019

Project ID: TJAAEEP4S

Project Desc Alt-En Ethanol Plant - NDEQ ASR

Anaı	ysıs	Comments About Results For This Analysis
1	Merci	ury in Soil or Sediment
_		Lab: Region 7 EPA Laboratory - Kansas City, Ks.
		Method: EPA Region 7 RLAB Method 3121.23E
		-
		Basis: Dry
		Samples: 1 4
		Comments: (N/A)
1	Metal	s in Solids by ICP-AES
		Lab: Region 7 EPA Laboratory - Kansas City, Ks.
		Method: EPA Region 7 RLAB Method 3122.3G
		Basis: Dry
		Samples: 1 4
		Comments: Barium was J-coded in sample 1. Although the analyte in question has been positively identified in the sample, the quantitation is an estimate (J-coded) due to low recovery of this analyte in the laboratory matrix spike. The actual concentration for this analyte may be higher than the reported value.
1	Perce	nt Solid
		Lab: Region 7 EPA Laboratory - Kansas City, Ks.
		Method: EPA Region 7 RLAB Method 3142.9H
		Basis: N/A
		Samples: 1 4
		Comments: (N/A)
1	TCLP	Mercury in Soil
		Lab: Region 7 EPA Laboratory - Kansas City, Ks.
		Method: EPA Region 7 RLAB Method 3121.23E applied to TCLP extracts
		Basis: N/A
		Samples: 1 4
		Comments:

1 TCLP Metals in Soil

Lab: Region 7 EPA Laboratory - Kansas City, Ks. Method: EPA Region 7 RLAB Method 3122.3G TCLP **ASR Number:** 8209

RLAB Approved Analysis Comments

04/24/2019

Project ID: TJAAEEP4S

Project Desc Alt-En Ethanol Plant - NDEQ ASR

Analysis	Comments About Results For This Analysis

Basis: N/A **Samples:** 1-__ 4-__

Comments:

Mercury in Water 1

> Lab: Region 7 EPA Laboratory - Kansas City, Ks. Method: EPA Region 7 RLAB Method 3121.23E **Samples:** 2-__ 3-__ Comments:

(N/A)

Metals in Water by ICP-AES 1

> Lab: Region 7 EPA Laboratory - Kansas City, Ks. Method: EPA Region 7 RLAB Method 3122.3G

Samples: 2-__ 3-___

Comments:

Aluminum was J-coded in sample 2. Although the analyte in question has been positively identified in the sample, the quantitation is an estimate (J-coded) due to high recovery of this analyte in the laboratory matrix spike. The actual concentration for this analyte may be lower than the reported value.

Nickel was J-coded in sample 2. Although the analyte in question has been positively identified in the sample, the quantitation is an estimate (J-coded) due to low recovery of this analyte in the laboratory matrix spike. The actual concentration for this analyte may be higher than the reported value.

Antimony, Cadmium, Lead, Molybdenum, Selenium, Silver, Thallium, Titanium was each UJ-coded in sample 2. This analyte was not found in the sample at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to low recovery of this analyte in the laboratory matrix spike. The actual reporting limit for this analyte may be higher than the reported value.

TCLP Mercury in Water 1

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

Method: EPA Region 7 RLAB Method 3121.23E applied to TCLP extracts

Samples: 2-__ 3-__

Comments:

TCLP Metals in Water 1

Lab: Region 7 EPA Laboratory - Kansas City, Ks.

RLAB Approved Analysis Comments 04/24/2019

Analysis Comments About Results For This Analysis

Method: EPA Region 7 RLAB Method 3122.3G TCLP

Samples: 2-__ 3-__

Comments:

ASR Number: 8209

Lead was UJ-coded in sample 2. This analyte was not found in the sample at or above the reporting limit, however, the reporting limit is an estimate (UJ-coded) due to low recovery of this analyte in the laboratory matrix spike. The actual reporting limit for this analyte may be higher than the reported value.

ASR Number: 8209 RLAB Approved Sample Analysis Results

Project ID: TJAAEEP4S Project Desc: Alt-En Ethanol Plant - NDEQ ASR

Analysis/ Analyte	Units	1	2	3	4
1 Mercury in Soil or Sediment					
Mercury	mg/kg	0.0112			0.00179
1 Metals in Solids by ICP-AES					
Aluminum	mg/kg	2420			7.5
Antimony	mg/kg	1.9 U			2.0 U
Arsenic	mg/kg	4.8 U			5.0 U
Barium	mg/kg	42.3 J			2.0 U
Beryllium	mg/kg	1.0 U			1.0 U
Cadmium	mg/kg	1.0 U			1.0 U
Calcium	mg/kg	2640			49.6 U
Chromium	mg/kg	3.4			2.0 U
Cobalt	mg/kg	1.7			1.0 U
Copper	mg/kg	13.6			2.4
Iron	mg/kg	3270			19.3
Lead	mg/kg	4.8 U			5.0 U
Magnesium	mg/kg	1610			991
Manganese	mg/kg	124			5.0 U
Molybdenum	mg/kg	1.9 U			2.0 U
Nickel	mg/kg	4.2			2.0 U
Potassium	mg/kg	3960			3730
Selenium	mg/kg	9.7 U			9.9 U
Silver	mg/kg	1.9 U			2.0 U
Sodium	mg/kg	694			49.6 U
Thallium	mg/kg	9.7 U			9.9 U
Vanadium	mg/kg	5.9			5.0 U
Zinc	mg/kg	262			18.4
1 Percent Solid					
Solids, percent	%	39.2			89.8
1 TCLP Mercury in Soil					
Mercury	mg/L	0.000440			0.000350
1 TCLP Metals in Soil					
Arsenic	mg/L	0.050 U			0.050 U
Barium	mg/L	0.674			0.016 U
Cadmium	mg/L	0.010			0.005 U
Chromium	mg/L	0.078			0.015 U
Lead	mg/L	0.050 U			0.050 U
Selenium	mg/L	0.066			0.050 U
Silver	mg/L	0.025 U			0.025 U
1 Mercury in Water					
Mercury	ug/L		0.250 U	0.250 U	
1 Metals in Water by ICP-AES					
Aluminum	ug/L		1580 J	60200	
Antimony	ug/L		50 UJ	50 U	
Arsenic	ug/L		25 U	25 U	
Barium	ug/L		164	727	
Beryllium	ug/L		3 U	3 U	
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ASR Number: 8209 RLAB Approved Sample Analysis Results

Project ID: TJAAEEP4S Project Desc: Alt-En Ethanol Plant - NDEQ ASR

Analysis/ Analyte Units 1	2	3	4
Cadmium ug/L	3 UJ	3 U	
Calcium mg/L	97.6	616	
Chromium ug/L	37	96	
Cobalt ug/L	10 U	18	
Copper ug/L	77	1660	
Iron ug/L	6640	67700	
Lead ug/L	50 UJ	97.2	
Magnesium mg/L	246	150	
Manganese ug/L	1130	2080	
Molybdenum ug/L	15 UJ	24	
Nickel ug/L	39 J	130	
Potassium mg/L	848	320	
Selenium ug/L	50 UJ	111	
Silver ug/L	25 UJ	25 U	
Sodium mg/L	414	256	
Thallium ug/L	50 UJ	50 U	
Titanium ug/L	20 UJ	105	
Vanadium ug/L	10 U	127	
Zinc ug/L	3060	14900	
1 TCLP Mercury in Water			
Mercury mg/L	0.000250 U	0.000530	
1 TCLP Metals in Water			
Arsenic mg/L	0.050 U	0.050 U	
Barium mg/L	0.122	0.070	
Cadmium mg/L	0.005 U	0.005 U	
Chromium mg/L	0.091	0.087	
Lead mg/L	0.050 UJ	0.050 U	
Selenium mg/L	0.050 U	0.050 U	
Silver mg/L	0.025 U	0.025 U	

04/24/2019

CHAIN OF CUSTODY RECORD FPM - ENVIRONMENTAL PROTECTION AGENCY REGION VII SITE OR SAMPLING EVENT DATE OF SAMPLE COLLECTION(S)

MONTH DAY YEAR Alt-En Ethanol Plant of CONTENTS OF SHIPMENT TYPE OF CONTAINERS SAMPLED MEDIA RECEIVING LABORATORY **ASR AND** BOTTLE REMARKS OTHER INFORMATION VOA SET (3 VIALS EA) OTHER SAMPLE BOTTLE (condition of samples upon receipt, SOLID NUMBER(S) OF CONTAINERS PER SAMPLE NUMBER AR other sample numbers, etc.) 2 1 1 2 **DESCRIPTION OF SHIPMENT** MODE OF SHIPMENT CONTAINER(S) CONSISTING OF _____ CRATE(S) COMMERCIAL CARRIER SAMPLER CONVEYED ICE CHEST(S): OTHER _ (SHIPPING AIRBILL NUMBER) PERSONNEL CUSTODY RECORD DATE TIME RECEIVED BY DATE TIME REASON FOR CHANGE OF CUSTODY RELINQUISHED BY (PM/SAMPLER) 1535 To shipsamples 4/8/19 48.19 SEALED UNSEALED UNSEALED A REASON FOR CHANGE OF CUSTODY RECEIVED BY MISAMPLER) DATE TIME DATE Tuol 48-19 TECEIVED BY RELINQUISHED BY (PWISAMPLER) DATE SEALED UNSEALED UNSEALED SEALED DATE RECEIVED BY DATE TIME REASON FOR CHANGE OF CUSTODY RELINQUISHED BY (PM/SAMPLER) TIME Page 9 of 13 SEALED UNSEALED | SEALED UNSEALED

WHITE ORIGINAL - EPA LAB . YELLOW - EPA PROJECT MANAGER

7-EPA-9262 (REV 4/17)

ASR Number: 8	3209 Sample Numb	per: 1	QC Cod	de: Matri	x: Solid Tag	g ID: 8209-1			
Project ID:	TJAAEEP4S Alt-En Ethanol Plant -	NDEO ASE	Project Manager: Tabatha Adkins						
City:	Nebraska								
Location Desc:	Wet cake sample								
Storet ID:		Extern	al Samp	ole Number: _					
Expected Conc	(or Circle C	ne: Low	Medium	High)	Date	Time(24 hr)			
Latitude:		Sam	ple Coli	ection: Start:	04/08/2019	11:00			
Longitude:				End:		_:_			
Laboratory An	alyses:								
Container	Preservative	Holdin	g Time	Analysis					
1 - 8 oz glass	4 Deg C	28	Days	1 Mercury in Soil	or Sediment				
1 - 8 oz glass	4 Deg C	180	Days	1 Metals in Solid	s by ICP-AES				
1 - 8 oz glass	4 Deg C	180	Days	1 TCLP Metals in	Soil				
1 - 8 oz glass	None	28	Days	1 TCLP Mercury i	n Soil				
0 -	4 Deg C	0	Days	1 Percent Solid					

Sample Comments:

(N/A)

ASR Number:	8209	Sample Number:	2	QC Co	de: Matr	ix: Water Ta	g ID: 8209-2			
Project ID: TJAAEEP4S Project Desc: Alt-En Ethanol Plant - ND				Project Manager: Tabatha Adkins						
						Nebraska				
Location Desc:	West	Lagoon water samp	le		•					
Storet ID:			Extern	al Samı	ole Number: _					
Expected Conc	:	(or Circle One:	Low	Medium	High)	Date	Time(24 hr)			
Latitude:			Sam	ple Coll	ection: Start:	04/08/2019	12:35			
Longitude:					End:	_/_/_	:			
Laboratory An	-									
Container	_	reservative		ng Time	_					
1 - 1 Liter plastic bo		mL of HNO3/L to pH<2		,	1 Mercury in Wa					
1 - 1 Liter plastic bo	ttle F	NO3 acidify, 4 Deg C	180	Days	1 Metals in Wate	er by ICP-AES				
1 - 1 Liter plastic bo	ttle N	one	28	Days	1 TCLP Mercury	in Water				
1 - 8 oz glass	4	Deg C	180	Days	1 TCLP Metals in	Water				

Sample Comments:

(N/A)

ASR Number:	8209	Sample Number:	3	QC Cod	de: Mat	rix: Water	Tag ID: 8	3209-3		
Project ID:		EP4S Ethanol Plant - NDE	O ASR	Project Manager: Tabatha Adkins						
-	Mead	Ethanor hance has	٠٠,٠٠٠		State	: Nebraska				
Program:	Water	Enforcement								
Location Desc	: Overf	low Lagoon water sa	mple							
Storet ID		E	xtern	al Samp	ole Number:					
Expected Cond	c:	(or Circle One:	Low	Medium	High)	Date	Ti	ime(24 hr)		
Latitude	:		Sam	ple Coll	ection: Start:	04/08/20	019 1	3:30		
Longitude	:				End			_:		
Laboratory A	-									
Container	P	reservative	Holdin	ıg Time	Analysis					
1 - 1 Liter plastic be	ottle 5	mL of HNO3/L to pH<2	28	Days	1 Mercury in W	ater				
1 - 1 Liter plastic b	ottle F	INO3 acidify, 4 Deg C	180	Days	1 Metals in Wa	ter by ICP-AES	5			
1 - 1 Liter plastic b	ottle N	lone	28	Days	1 TCLP Mercury	/ in Water				
1 - 8 oz glass	4	Deg C	180	Days	1 TCLP Metals	in Water				

Sample Comments:

(N/A)

ASR Number: 8	3209	Sample Number:	4	QC Cod	de: Matr	ix: Solid	Tag ID: 8	3209-4		
Project ID:	TJAAEEP4S Project Manager: Tabatha Adkins Alt-En Ethanol Plant - NDEQ ASR									
City:	Mead	Enforcement	State: Nebraska							
Location Desc:	Seed	corn sample						•		
Storet ID:			Extern	al Samp	le Number: _	#*****				
Expected Conc	•	(or Circle One:	Low	Medium	High)	Date	Ti	me(24 hr)		
Latitude:			Sam	ple Coll	ection: Start:	04/08/2	019 1	3:30		
Longitude:					End:	//_		:		
Laboratory An	alyses	6:								
Container	F	Preservative	Holdir	ng Time	Analysis					
1 - 8 oz glass	4	Deg C	28	Days	1 Mercury in Soi	or Sedimen	t			
1 - 8 oz glass	4	Deg C	180	Days	1 Metals in Solid	s by ICP-AES	3			
1 - 8 oz glass	4	Deg C	180	Days	1 TCLP Metals in	Soil				
1 - 8 oz glass	ľ	lone	28	Days	1 TCLP Mercury	in Soil				
0 -	4	Deg C	0	Days	1 Percent Solid					
Campala Campa										

Sample Comments:

(N/A)